

MARINE REVIEW.

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No. 1.

Iron Stocks a Purchase—Bearing on the Lake Trade.

There are few more careful observers of the iron market than the capitalists dealing in Lake Superior iron mining stocks, whose close relations with the mining companies and the transportation business enable them to base their transactions on information from first hands. Operations in this line have an important bearing on the lake trade, especially at this time when the ore business has been so long delayed as to hold the key to the freight situation. It is generally admitted that mining stocks have reached bottom and the only hindrance to an active movement in them during the past week has been the fear of further labor troubles in the furnace regions of Pittsburgh and vicinity. The mining companies, will, of course, not show profits equal to former years, on account of the low prices at which early sales of ore were made, but most of the better class of mines are in a position to take advantage of an improved market and there is now every reason to believe that the close of the year will be very active in the iron business, with a demand for ore largely in excess of the short season left to supply it. Buyers and sellers of mining shares are already apart on prices and most owners of the stocks are strong holders, as against a market a few weeks ago in which there were no buyers at any price. The strong companies have withheld dividends during the depression of the past eight months and the general policy among them has been in the direction of placing their affairs on a sound basis through the accumulation of surpluses, even during the past year. This is especially noticeable in the case of the Chandler and other properties that have come into prominence of late. If the Chandler's surplus assets, including the value of ore carried over from last season, were all figured up they would undoubtedly be found to aggregate about \$700,000. Lake Superior, Lake Angelina, Republic and other leading companies are also in excellent condition to make good statements as a result of the present year's business when the low prices of stocks are considered. The only dividend announced during the week is one of \$1 a share, No. 43, the first of the new year, declared by the Lake Superior company on Saturday and made payable on the 11th inst. This company paid \$4 last year. A number of good mines in the Lake Superior region, such as the Brotherton and Windsor of the Gogebic range, have sold no ore and are not on the shipping list so far this season, but they are in some cases mines that can afford to await improvement in the market rather than risk a loss of money and they will be heard from later on. Sales of iron in Pittsburgh for June exceed by over 100,000 tons any previous record for the corresponding time, and prices have gradually advanced.

Lake Freight Situation.

If facilities can be found on Lake Erie for the handling of 6,000,000 tons of ore there is every reason to believe that the mines of Lake Superior will still produce that amount during the present season. When it became evident to the ore dealers of Cleveland last fall that the iron business was in a most deplorable condition, a meeting of representatives of the different companies was called, and a statement from all of them showed that there was approximately 1,200,000 tons of unsold ore on Lake Erie docks. Little if any of this ore was sold during the

winter, so that of the 2,400,000 tons of ore on dock when navigation opened this spring just one-half was unsold. It was generally known that there was a great deal of unsold ore, but the ore dealers managed to keep the exact figures a secret and they had the co-operation of other interests entitled to information on the subject. Estimates on the sales of ore made so far this spring are placed by the sales agents at 4,500,000 tons. As this is said to include, however, the 1,200,000 tons of unsold ore on dock May 1, the sales of ore to be brought down would aggregate only 3,300,000 tons. Add to this the total of 2,400,000 tons on dock May 1 last, and there will be for consumption during the year only 5,700,000 tons, as against a consumption for the year previous to May 1 last of 7,590,000, and this with a winter of inactivity in the furnaces of the Mahoning and Chenango districts. As indications all point to an active iron trade for the year to come, it would seem that the estimate of sales is very low, or there is still a great deal of ore to be sold on an improved market.

Between July 1 and the close of navigation last season a little more than 6,000,000 tons of the total output in the Lake Superior region was put forward by the mines and this work will in all probability be repeated in a similar portion of the present season now left in which to accomplish it, as there will be a demand for the ore, and it would be making the total output of the season but a little more than 6,000,000 tons, only equal to the output of the last five months of 1890. The furnace owners are now moving the ore from dock very freely and a shortage of cars will alone stand in the way of taxing floating property to its full capacity.

One thing seems certain—no more ore will be sold except at improved prices. Rates still hold to 90 cents from Marquette and Ashland and 65 cents from Escanaba, but the situation is very strong, especially as regards the Ashland rate. Coal for the head of Lake Superior is not plentiful and vessels prefer in many cases to go light to Marquette where the full Ashland rate has been offered freely for several days past. Chartering of ore vessels has been very heavy but the supply is still short of the demand. Duluth has been offering $2\frac{1}{4}$ cents on wheat, which is about equal to the Ashland rate, and there was 2,231,920 bushels in store there Saturday, as against 5,150,867 bushels on the corresponding date a year ago. Coal freights are steady on the basis of 50 cents to the head of Lake Superior and 60 cents to Chicago and Milwaukee. Coal for Lake Superior has not been plentiful during the week but vessels are wanted for all ports on Lake Michigan.

Fly the Colors.

On Saturday and Sunday of next week, July 11 and 12, the several members of congress who are to be the guests of Senator McMillan and Congressman Stevenson of Michigan, and who come to the lakes for the purpose of acquainting themselves with the extent of commerce, will be in Detroit and at the St Clair flats. Capt. J. W. Westcott and other Detroit vessel owners suggest that it would be well for vessels passing up and down the river to fly their colors, and the suggestion seems fitting. Most of the vessel masters will undoubtedly comply with the request. It is also suggested that vessels spread their bunting on August 3, 4, 5 and 6, when the national reunion of the G. A. R. will be held in Detroit.

Famous Armour-Marion Collision.

The Armour-Marion collision case, made famous by the work of Wrecker Reid, who spent a whole year in raising the sunken Armour, succeeding finally by placing cofferdams around her, is now on trial before Judge Jenkins of the United States district court at Milwaukee, with a talented array of counsel on both sides. The case may be summed up in substance as follows: Both are large wooden steamboats, the Philip D. Armour owned by R. P. Fitzgerald of Milwaukee and Wiley M. Eagan and Philip D. Armour of Chicago, and the Marion owned by James E. Dannaher and George N. Stray of Ludington and Capt. John Cochran of Milwaukee, who sailed her at the time of the accident. At 7:30 o'clock in September, 1889, about the gray of the evening with clear weather, so that the crews of each boat could see the hull of the other some distance away, the Marion, bound up, and the Armour, bound down, met in the St. Clair river at South-east bend, opposite the Canadian club house. The Marion struck the Armour on her starboard bow and the latter, swinging around, went down in 72 feet of water with a cargo of 89,000 bushels of corn. It is claimed for the Armour that she was going down on the American side and signalled with one blast, the Marion answering with two; that she then blew one blast which the Marion did not answer at all, and that the Marion then got on the inside of her, sheered out and struck her. For the Marion it is claimed that she heard the two whistles up the river and supposed the signal came from the Armour, whose lights she saw. The Marion was then about in mid-channel and answered what she supposed was the Armour with two blasts, and on account of her position in mid-channel, with the vessels about a mile and a half apart and a bend between them, she made no change of helm. A little later, it is claimed the Armour blew one whistle, to which the Marion replied with one, the vessels being then about one-half mile apart. The Marion then made the bend and ported a little up the straight reach, opening the Armour's red light. The vessels proceeded some distance farther, each showing both side lights, according to the Marion's claims, and each drawing a little on the port bow of the other, when the Armour shut out her red light and was seen to be swinging out across the Marion's bow. At this time the Marion hard aported and reversed but the Armour had started on the swing and went farther toward the Canadian shore than the Marion, when she received a blow on the starboard bow about 10 or 15 feet from the stem. The Armour went down in two or three minutes. The Marion sustained some damage but was able to finish her voyage after making temporary repairs at Port Huron.

The Armour is represented by George C. Markham of Milwaukee and C. E. Kremer of Chicago, and the Marion by H. C. Wisner of Detroit, G. D. Van Dyke of Milwaukee and Harvey D. Goulder of Cleveland. Judge Swan of the United States district court, Detroit, was in the case on the side of the Armour up to the time of his appointment to the bench.

Distinguishing Stack Marks.

Many of the line boats on the lakes and the larger fleets have some distinguishing mark on their stacks, or their hulls are painted so that any one seeing them several times can readily recognize them. Lake faring men in general, however, pay little attention to these marks, and do not use them in recognition any more than a man would recognize a friend by the wart he might have on his nose. The masts, rig and general appearance are the only marks needed. It may be interesting, however, to mention a few of the more prominent marks. The Lehigh Valley steamers all have a large black diamond on a red band, while the six Northern Line steamer stacks are provided with a white star. The Union Steamboat Company steamers, among which are the Owego and Chemung, have a diamond which contains the word "Erie," and the Johnson steamers carry white diamonds on their stacks. The

Western Reserve and other steamers belonging to the Minch fleet have a black top and red bottom, almost similar to the passenger steamers of the Goodrich line. The "Iron" boats and the E.C. Pope, managed by Capt. Millen have stacks banded with orange yellow, and the W. F. Sauber, Mitchell Transportation Company, has a red band around the stack. Stacks of the Grummond tugs are three-quarters white at the top. Six Menominee boat stacks bear a shield divided by a blue band into three parts containing the letters "M. T. Co." while the Mutual boats, also managed by Capt. Geo. P. McKay, have a blue globe, with lines of latitude and longitude in white. The Geo. T. Hope has a white "F" on the stack, which is the initial of her owner. The Western Line stacks, Hudson, Harlem, etc., are red and yellow, while the Anchor Line and Vermont Central, have a somewhat similar arrangement of black and white. The Cleveland Rolling Mill Company steamers Chisholm, Devereux and Wade, have red stacks with black band on top.

The Bradley fleet of steamers have a red stack with a black four-foot band at the top. White letters "R" adorn the stacks of the Republic Iron Company's boats and the Lake Superior Iron Company's Joliet, La Salle, Wawatam and Griffin have the letter "S" in white and their pennants have a blue "S" on a white background. The Orient steamers wear white stacks with black tops, and the light yellow band around the Yucatan and the other steamer belonging to W. J. White, is indicative of the brand of chewing gum he manufactures. The Castalia, Brown Steamship Company, has no stack mark but makes up for it with a distinguishing pennant, having an anchor and chain center piece with red, white and blue corners.

Weather Service on the Lakes.

It will be remembered that in deciding the case of the owners of the schooner *Midnight* against the propeller *Wilhelm* at Detroit last March, Judge Hammond took occasion to intimate that the modern signal service observer was about on par with the groundhog and blamed the observer "whose business it was" to look out for the storm which had a bearing on the case. The decision was garnished with aesthetic expressions, one being that "storm flags are hauled down from cloudless skies radiant with sunshine." In the last number of the Meteorological Journal, Prof. Harrington replies to the glittering generalities with an article that will interest lake masters as well as the learned judge. The weather, temperature and wind from July 1887 to January 1891 was correctly forecasted five times in six at all stations in the United States. The temperature predicted was verified three times in four and the cautionary signals, two times in three. The article continues to say that while lake masters regard cautionary signals as the indications for favorable sailing winds, that many masters get specific information by calling at signal offices in different lake ports. The writer thinks that the efficiency of cautionary signals could be increased by limiting their display to winds that are really dangerous. Another table shows that summer predictions lose ten per cent in verification as compared with other seasons of the year, and still another table shows that while verifications on the Pacific coast are as high as 84 per cent. that those on the lakes only average 77 per cent. The reasons given for this is that the northern boundary, about and west of the great lakes is a critical line across which weather conditions frequently pass, and that predictions for the lakes depend somewhat on the Canadian weather service. In view of this it is suggested that a predicting officer might be stationed at Mackinac, the Sault, Marquette or Duluth. This suggestion might well receive the attention of the order of lake masters at their meetings during the coming winter. In connection with the foregoing it will be interesting to know that verifications on predictions by the Cleveland observer during the past six months have averaged 84, or 21 out of 25. The most excellent record attained in the service was that of Sergt. Stockman at Cleveland last September, when the verifications averaged 99.5.

The suggestion made in the foregoing paragraph for the improvement of the weather prediction service will have considerable weight, as the writer, Prof. Harrington, of Ann Arbor, Mich., has been appointed chief signal officer under the new regime of the agricultural department, which began July 1.

Record of Speed and Big Cargoes.

[*Masters or owners are invited to report improvement on this list.*]

Iron ore: Lake Michigan—Maryland, Inter-Ocean Transportation Company, of Milwaukee, 3,322 gross, or 3,737 net tons from Escanaba. Lake Superior—E. C. Pope, Dry Dock Navigation Company, of Detroit, 2,718 gross, or 3,074 net tons from Ashland, light draft.

Grain: W. H. Gilcher, J. C. Gilchrist, of Cleveland, 114,982 bushels of corn, Chicago to Buffalo; America, M. M. Drake, of Buffalo, 111,507 bushels of corn, Chicago to Buffalo.

Speed: Owego, Union Line, of Buffalo, Buffalo to Chicago, 889 miles, 54 hours and 16 minutes, 16.4 miles an hour; Saranac, Lehigh Valley Line, of Buffalo, Buffalo to Lime-Kilns, 240 miles, 15 hours and 10 minutes, 16 miles an hour.

Iron Mining.**VALUE OF LEADING STOCKS.**

Quoted by Chas. H. Potter & Co., No. 104 Superior St.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company.....	\$100 00	\$.....	\$ 80 00
Champion Iron Company.....	25 00	.....	.....
Chandler Iron Company.....	25 00	37 00	39 00
Chicago and Minnesota Ore Company.....	100 00	.....	95 00
Jackson Iron Company.....	25 00	90 00	100 00
Lake Superior Iron Company.....	25 00	52 50	55 00
Minnesota Iron Company.....	100 00	69 00	71 00
Pittsburg Lake Angeline Iron Co.....	25 00	.....	140 00
Republic Iron Company.....	25 00	29 00	30 00
Michigamme.....	25 00	.....	5 00

It is still impossible to obtain reports of shipments from all of the Lake Superior mines for the present season, but it is certain that the entire output of the district up to July 1 does not exceed 600,000 tons, as against 2,890,240 tons on the corresponding date a year ago. The movement from Ashland is in advance of other ports, although the total from that port to June 24 was only 208,402 tons. On June 17, Two Harbors had shipped 77,389 tons of Minnesota and 53,230 tons of Chandler making a total of 131,069 tons, while 30,669 tons from the Ludington mine had gone forward from Gladstone. Regarding Marquette and Escanaba no definite figures have been given out but their shipments would not bring the grand total above 600,000 tons. Shipments of the different Ashland mines to June 24 were as follows: Carey 13,627 tons, Eureka 3,497, Trezona 5,368, Germania 1,768, Mt. Hope 11,012, Norrie 54,748, East Norrie 25,405, Pabst 32,977, Ruby 166, Sunday Lake 4,545, Ashland 20,541, Aurora 16,488, Tilden 4,379, Montreal, south vein 4,458, Palms 4,319, Bessemer 5,104.

The government officials of Canada who are over zealous in their efforts to head off the investment of American capital in the mining region of northwestern Ontario, have brought on a depression in development that is decidedly discouraging to the people in that section of the country. A correspondent making a trip through the district writes: "Since the California gold fever of forty years ago, no new mining district has attracted such world-wide attention as the Sudbury nickel range. But when I left there last week there was not one-tenth the mining activity and interest anticipated six months ago, and nearly every one at parting said, 'I wish I could go with you, for the Ontario government has knocked us out here.' At Sault Ste. Marie a few prospectors were exploring on the surrendered Indian lands back of the town. They hate to leave the country, but can only see starvation ahead if they stay. Work of any kind is not to be had there except on the new canal which is progressing well but the wages paid are low. From one end of Algoma to the other I found a new movement being inaugurated, which is nothing less than the formation of the district into a new and separate province of Algoma. Many of the leading men of the district, regardless of politics or any other considerations, are discussing the matter in dead earnest. The idea probably originated in the recent proposal to separate north Michigan, just across the lake, from the south part of the state, on the ground that their interests are not the same. Be that as it may, the universal dissatisfaction with the new mining act in Algoma is the immediate cause of the movement here. The arguments used in north Michigan apply with double force in Algoma."

There are rumors of a general change in the affairs of the Chapin mine, even to the system of mining, under the reorganized company, and it is more than probable that everything pertaining to this costly property will undergo alterations in accordance with the conservative disposition of the new management.

In Cleveland the company has established headquarters in the Perry-Payne building where Mr. G. H. Kent, vice-president secretary and treasurer, has taken up offices separate from the firm of M. A. Hanna & Co., the senior member of which, Mr. M. A. Hanna, is president of the Chapin mining company. The company has sold very little ore in comparison with former years, on account of the low prices that have prevailed so far, but will be in a position to take advantage of the improvement now expected in the market. At the mine the working force has been reduced to about 900 men, mining not more than 1,500 tons a day, with the shipments from stock pile and mine reduced to 12,000 tons a week.

The Chandler enjoys the distinction of having produced the greatest amount of iron ore ever taken from a single forty. The mine is this season excelling its past record. Its average shipments are 150 car loads a day, twenty-five of which come from the newly opened north vein, or shaft No. 3. Thus the last acquisition to the mine bids fair to equal the old, as twenty-five cars a day is a remarkable record for a new shaft.—Two Harbors Iron News.

About 7,000 feet of track opening the workings in the new find of the Commonwealth company is now completed and shipments are about to begin. One of the footwall shafts is down and the second one would have been finished but for delay in sinking, on account of a body of quicksand encountered in the work. Shipments from the new property will begin in a few days and the company will undoubtedly make a good showing.

The Diamond Drill of Crystal Falls says that the Shafer, one of the most promising mines of that district, has made sales aggregating about 100,000 tons. So far this season 20,000 tons of ore has been shipped, one-half of it coming from the stock pile, which still contains 20,000 tons. The mine is now 295 feet deep and is resting at that. A new shaft, No. 3, is down to the third level, 280 feet, and will soon be ready for use.

Mr. E. Florada, who has been in charge of the Dunn and Armenia mines for a number of years past, has resigned and is succeeded by Capt. Bennetts, who is also an official of long service. The resignation of Mr. Florada was probably due to matters arising from the recent appointment of Mr. T. F. Cole to the general management of all of the Schlesinger properties.

The Mesaba Iron Company held a meeting last week and re-elected the old officers—Alexander Ramsey, president; M. V. Mills, vice president; W. W. Spalding, secretary and treasurer. The option of 9,000 acres of land to the Mesaba syndicate, now developing the property, was extended.

At the Lakeside the diamond drill has penetrated the rock to a depth of 500 feet, and sufficient has been revealed to warrant the sinking of a shaft, on which work will soon be begun. The prospects for the development of a mine are considered good.—Iron Ore.

One of the Lake Superior papers figures that during the season of 1890 there were ninety-six mines of the Vermillion, Gogebic, Menominee and Marquette ranges shipping ore, as against twenty-two mines on the shipping list so far this season.

A Small Reduction.

Cleveland ore companies having the management of mines shipping ore from Ashland are advised of a reduction of 5 cents a ton in the rail rate on ore from the mines to Ashland over the Lake Shore and Wisconsin Central roads. This brings the rate down to 65 cents a ton, and it is understood that the Chicago & Northwestern will reduce its rate on ore from the Marquette range to Escanaba to the same figure, making the differential between Marquette and Escanaba 20 cents a ton, instead of 25 cents as formerly. The prevailing difference between Escanaba and Marquette in the lake freight to Lake Erie ports has not been more than 20 cents of late, and the Duluth, South Shore & Atlantic was profiting by a 25-cent differential in shipments of ore by way of Marquette. The Chicago & Northwestern accordingly made application to the Western Traffic Association for the reduction. The Ashland roads have always held to the same rate as that made by the Northwestern from the Marquette range to Escanaba and insisted on reducing their rate when the Marquette-Escanaba differential was changed.

Bulletins on Change in Aids to Navigation.

The light-house board has adopted a plan of publishing monthly bulletins in pamphlet form giving changes in aids to navigation, according to districts, in all parts of the country. The bulletins will be published soon after the first of each month and can be obtained from any of the light-house officials, or from collectors of customs at different ports. Changes in the Ninth, Tenth, and Eleventh districts will, of course, be all that will be of interest to the lake navigators, but the form in which the bulletin is issued makes it convenient to file for reference. There is also attached to the pamphlet a sheet, on which masters may note any misplaced buoys or make a report of any kind to the light-house officials, and it is so arranged that it can be folded and forwarded to the proper authorities without charge for postage. The first copy does not state whether the old system of sending to collectors of customs and others, notices of changes in aids to navigation will be discontinued or not.

The board is also preparing through the different district officials photographs of all of the light-houses in the country, from which engravings will be made to be used in connection with sailing directions. The engravings are to be sufficiently comprehensive in details to enable one light to be easily distinguished from another by the characteristics of the buildings, towers, bluffs, adjoining buildings, etc.

To Equalize Dock Charges.

With the increased demand for ore dock facilities on Lake Erie of late years, such ore companies as the Minnesota and Pittsburgh & Lake Angeline having furnace interests have profited by controlling dock property over which the great bulk of their ore is handled. This is true mainly of Fairport and Ashtabula where some of the principal owners are Pittsburgh and valley furnace men. The furnace owners and ore dealers who own no part of the docks have been at a disadvantage, accordingly, but the Pennsylvania Company, operating the docks of the Cleveland & Pittsburgh Railway, has announced a plan of rebates on dock charges this year that may result in a benefit to its customers. Morris, Ellsworth & Co. of Cleveland are the lessees of these docks and an arrangement has been made between them and the railway company, whereby the latter pays for all labor out of the income of the docks and allows the lessees a fair price for the use of the dock equipment with the understanding that all moneys over and above these charges be returned pro rata to the concerns shipping ore over the docks.

Big Cargoes.

A cargo of 2,718 gross tons, which with the addition of the 1 per cent. moisture allowance and 70 tons of fuel makes a total of 3,144 net tons, is the last load of the big steel steamship E. C. Pope from Lake Superior. This is ahead of any cargo ever carried through the canal, although the depth of water last season was several inches greater than the present depth of about 14 feet 3 inches.

The F. W. Gilcher's cargo of corn from Chicago to Erie was 18 bushels short, so that her load to be exact was 114,982 bushels.

Leading the Flyers.

When the present season is at an end it is more than probable that the boats of the Lake Superior Iron Company, La Salle, Joliet, Wawatam and Griffin, will be in the front rank as regards trip records by the iron flyers in the ore trade. The La Salle and Joliet will make exceptional showings as they were out earlier than the others and have been making round trips between Marquette and Lake Erie on seven-day time. Both boats have now taken an eighth load, the La Salle being two days ahead of the Joliet. They are making 11½ miles loaded and 12½ miles light. The two boats launched this spring, Wawatam and Griffin, are expected to make better time than the first two, as they

have independent air pumps and the main driving power, which is the same in all four boats, is relieved to that extent. Mr. Henry Coffinberry of the Cleveland Ship Building Company, the builders, says this will certainly show in speed, but it wouldn't do to repeat this to the captains of the first two boats, as there is a spirit of good-natured contention among the different masters that is working well for the owners. These boats carry 2,000 gross tons a trip, working on a charter of \$1 a ton from Marquette, and it is said that their actual running expenses are held within \$1,000 a trip.

E. M. B. A. Notice.

The directory containing the names of all members of the E. M. B. A., their pennant numbers and addresses is in press and will be completed this week. Members of the association will receive one copy by presenting their pennant numbers at any of the following tug offices: V. O. T. office, Cleveland, J. S. Dunham's or F. B. Higgin's offices, Chicago; Hand & Johnson's or Thomas Maytham's offices, Buffalo; Milwaukee Tug Boat Line office; B. B. Inham's office, Duluth; or at the lock office, Sault Ste. Marie.

Cleveland Matters.

F. W. Wheeler, who sold the propeller Ossifrage to a local stock company, accepting about \$5,000 as part payment, will in all probability take back the boat. Debts amounting to about \$2,500 have tied her up, and no additional payments have been made on the vessel.

The whaleback steamer Colgate Hoyt will spend fully three weeks in the Ship Owners dry dock as a result of her accident above the Sault, and repairs to her bottom will cost from \$15,000 to \$20,000. The captain says that new buoys placed by the government among the Top-Sail shoal buoys to mark the Hay lake channel misled him.

Cleveland vessel owners and leading citizens are endeavoring to have the senators and representatives who are to be the guests next week, of Senator McMillen and Congressmen Stevenson spend a day or two in Cleveland before going up the lakes. Congressman Burton and others are now carrying on a correspondence with this end in view and will probably be successful. It is expected that the congressional party will return to Buffalo after going up the lakes.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 210 So. Water Street, CHICAGO, Ill., July 2. {

At the mayor's office Monday a conference of the utmost import to the marine interest was held. The mayor, commissioner of public works, corporation counsel, city engineer, Col. Ludlow of the United States engineer corps, Collector Clark, T. T. Morford, J. S. Dunham and Hugh McMillan were present. They talked over an hour in a most friendly way and the results were more than satisfactory to the marine men present. The city administration put itself on record in an unmistakable manner on the position of the marine interest in Chicago's commerce. It was the most hearty and sincere recognition that a component part of Chicago marine men perhaps have ever received at the city hall. They were not treated as aliens, enemies of the public weal and general disreputables; such was wont to be the case under Harrison and Cregier. As to the result, it can but be well, although Canal street bridge may remain longer than vesselmen would desire. But there are many other places where the Chicago river needs improvement, besides at Canal street and the present city administration is going to do what it can. There is not much doubt but Canal street bridge will come out in the end, but the marine interests, in view of the spirit of fairness displayed by Mayor Washburne and Commissioner Aldrich, is not disposed to force matters by a formal and peremptory demand that the bridge be removed at once. The board of engineers meets here July 9, to pass on the bridge as an unreasonable obstruction to navigation. The city will probably wait until the board's report has been given out by the secretary of war. Ten to one it will be for the removal of the bridge.

The city smoke inspector is after the tugs and complaints by the hundred are on file at the city hall. After all the tugs in the river are fined \$50 a piece two or three rounds, what then? Capt. John Crawford of the Chicago Towing Company says tugs in Chicago can not burn hard coal and do the work required of them. He is about right. No smoke consumer worth a continental has ever been placed on a tug. Soft coal then is the only thing that can be used and soft coal makes a smoke.

Commencing on the tugs, when nearly every chimney in town is sending forth dense volumes of black smoke, is the usual way of reformers. They select some one who is not strong enough to resist and kick him all over town. If reformers were seeking that inward balm of a well-kept conscience, happy in doing its duty, instead of claptrap buncombe, matters would be better here below.

Grain freights are doing quite well. Thanks to the strike an advance to 1½ cents on wheat to Buffalo was secured Monday. The stevedores' strike came just at the critical time when Chicago elevators were well nigh empty. The report of the visible supply of grain Monday showed a remarkable decrease. Harvest is now here and grain receipts will be light for some time. The strike helps to bridge over that period without another break in rates. If a semblance of a backbone can be maintained until Aug. 1 it is safe to predict a fair time until the close of navigation. No owner should depend much on grain freights until the new crops begin to move. The lines are certain to take most of the present stocks in Chicago elevators. Crowding in outsiders even if a slight advance is secured will only break the market back to a cent and the effect will be to react against a further advance in ore.

The action of the customs authorities at Prescott in requesting that the American flag on the whaleback boats should be lowered when running the St. Lawrence river rapids was rather a brazen exhibition of John Bull's self-sufficiency. English vessels, like the Rosedale, have entered Chicago river and followed its tortuous course to the end, flaunting their British flags and no one thought anything of it. The Canadians must be frightfully touchy and somewhat terror stricken at the thought of annexation to have objected to the stars and stripes on the whalebacks. It is to be feared that if Capt. McDougall or Capt. Rardon ever run for alderman their unpatriotic course in consenting to the lowering of the flag, will lose them votes.

Once in awhile a Chicago paper makes a bad break in writing up marine affairs. Some new reporter evidently, was assigned Sunday on the longshoreman's strike. He said the next morning that forty line boats were due here Monday, and that the Western Transit Company had 500 cars waiting to be unloaded. Other statements were as wonderfully constructed. Of course, he did not know what he was talking about. Forty line steamers in a day! There are but thirty-nine line boats carrying merchandise altogether. But many newspaper statements, which are vigorously denied, are better founded than this new reporter's article. The other day a stinging denial, telling the editor how to run his paper, came to a Chicago newspaper office. It was in regard to a marine news item. It happened that the item was given out by the correspondent's agent, who had done the business. The principal may not have known the truth about it, but he probably did, and considered he could bluff it out. Once a Chicago vesselman was interviewed. He was hot under the collar and talked right out in meetin'. When the interview was published it exactly suited him, but in a few days it was different. "You have got me into a devil of a hole," he said. "What did you do?" he was asked. "Denied the interview; nothing else to do." He was probably right, but the interviewer got the credit of reckless work. There is too much reckless work, to be sure, but the denial of an item does not settle the point by a great deal. The trouble is the newspaper man in nine cases out of ten is obliged, out of regard to those of whom he obtained his news, to pay no attention to denials and to make no effort to substantiate the truthfulness of what he writes.

Chicago excursion boats are now doing a rushing business. From 2,000 to 3,000 people take moonlight boatrides every warm, pleasant evening. There is a veritable boom in that branch of lake traffic.

Dull Shipping in Canada—Harbor Improvements.

Special Correspondence to the MARINE REVIEW.

KINGSTON, Ont., July 2.—To give an idea how dull it is in these quarters now, it might be stated that boats which carry coal to Ottawa, down the Redeo canal, have to return light, there being no lumber in that district to come this way. The railways are carrying it from Ottawa to Oswego at rates that would keep a boat tied up. Such a thing as boats returning up the Redeo light was never known before. They have not only to come back light but pay lockages too.

The steamboats and other craft down the St. Lawrence are not in as good condition this year as they were last, and for this reason, there is nothing to do, owners will not go to expense in fitting them up unless they see something ahead. Not a single dollar was laid out on some of the boats, which have been classed low in consequence.

A. T. Smith of this city has patented a diver's telephone which was tested by the Collinsby Rafting Company and found to work most satisfactorily. The diver down forty feet carried on a lively conversation with his employer above. The work of divers was very slow because they had to ascend not only for instructions but for the slightest tool. The telephone will accelerate the work considerably.

Capt. Anderson of the marine department at Ottawa was here the other day looking over the harbor in connection with the proposal to lay

out some range lights, things which are very badly needed. Mariners are wondering if the engineer's visit will be all that will be heard of the matter. The Canadian Marine Association at its meeting last year petitioned the government to place range lights in this harbor but no notice was taken of the petition. The board of trade moved also, but still the lights do not appear. The government evidently does not realize what an important factor is safety for vessels here in the grain trade. Propeller after propeller that comes here gets on the shoals. When they go back they warn others and the result is Kingston is placed at a disadvantage. The lowest rate for corn to Buffalo from Chicago is 1 cent while it is 2½ cents to Kingston, notwithstanding that this is only about twice as far as Buffalo is. It shows, however, that navigators must have the extra quarter of a cent, simply because there is risk in entering this harbor. The disadvantage is quite obvious, therefore the government if it has interest in the Canadian grain trade, will see that the range lights are put in as soon as possible. There are from 10,000,000 to 15,000,000 bushels of grain coming here annually, and doesn't it seem strange that, while the St. Lawrence is an exceedingly dangerous river to navigate, there are more accidents in the Kingston harbor than on the river.

The propeller Newcomb, ashore on Lake Ontario, is now owned by the underwriters, who have paid the insurance and are ready to sell her for almost any price.

The new steamer North King made 9 miles in 34 minutes recently.

The tug Gordon owned by Connolly Bros., collided with the schooner Kate not long ago and the owners are now being sued for \$200 damages.

The underwriters would not insure the whaleback Colby, the run down the rapids being so dangerous. Her owner had the pluck to run her down without insurance.

Vessels are continuing to carry coal from Oswego here at 25 cents per ton. There is not much money in that trade.

West Bay City Ship Yards.

Special Correspondence to the MARINE REVIEW.

WEST BAY CITY, Mich., July 2.—Capt. Davidson was in Cleveland during the week looking after matters pertaining to his understanding with Ferdinand Schlesinger regarding the "Big Four" steamers, but it is not learned that he accomplished anything. The boats are still on his hands with no hope of assistance from the man of mining fame. They are being fitted out to sail immediately and will be managed in Cleveland, James Davidson, Jr., going there for that purpose. The schooner Harold, the last wooden boat at Davidson's yard was launched Saturday afternoon. This practically closes up work at the yard. The finishing touches on the Harold will be completed in a few days. The propeller Monohansett will be repaired during the season, but work on her will not be rushed.

Wheeler & Co. are doing a little repair work and in order to keep their best workmen have branched out into store furnishings, etc., and are turning out a remarkably fine line of counters, fancy cases and the like. They have also put in a bid for the finishing of the new Presbyterian church in Bay City. It is more than probable that if the firm should succeed in building up anything of a trade in this class of work it will be continued as a separate branch of the business. The steamer for the Nicaragua Canal Company is being slowly completed.

At Garlano's marine railway in Bay City, the steamer Burch is being rebuilt and converted into a tug for Clark, Quick & Co. of Sandusky, who recently purchased her from H. E. Bristol of East Tawas. The survey of damages on the steamer Dove, which was partially burned at Wheeler & Co.'s dock last week, was completed and the amount fixed at \$6,600. Capt. Holt has not yet decided whether he will have the boat rebuilt or not. He recently expended \$10,000 on the Metropolis and at present he has no route on which to place the Dove were she in condition for business. The tug Music of the Saginaw Bay Towing Association's fleet, ran on the rocks in Georgian bay last week. Amount of damage done has not yet been reported here.

Again Lower Than Coast Builders.

Again the lake builders have all underbid the yards of the coast this time on four steel lightships to go down the canals for service on the Atlantic. The meaning of this, together with the fact that three steel barges were sent to the coast over the St. Lawrence rapids last week, is that the lakes have better facilities for building vessels than any other part of the country, and the shipbuilders of this district will in time get a large portion of the sea going tonnage to build. There were six bidders for the lightships from the lakes and four from the seaboard, and the lake bids were all lower than those of the coast. F. W. Wheeler & Co. of West Bay City get the work. The bids on all four boats from lake bidders were as follows:

Craig Ship Building Co., Toledo.....	\$199,920
Union Dry Dock Co., Buffalo.....	259,000
Detroit Dry Dock Co., Detroit.....	230,000
F. W. Wheeler & Co., West Bay City.....	189,000
Cleveland Ship Building Co., Cleveland.....	244,000

David Bell of Buffalo put in a bid of \$45,000 for one boat.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, } PROPRIETORS.
F. M. BARTON,
HOMER J. CARR, - - - Associate Editor and Manager Chicago Office,
210 South Water Street.

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The books of the United States treasury department contain the names of 3,510 vessels, measuring 1,063,063.90 tons in the lake trade. In classification of this fleet the lakes have more steamboats of 1,000 to 2,500 tons than the combined ownership of this class of vessels in all other sections of the country. The classification is as follows:

Class.	Number.	Tonnage.
Steam vessels	1,527	652,922.25
Sailing vessels.....	1,272	328,655.96
Canal boats.....	657	67,574.90
Barges.....	54	13,910.09
Total.....	3,510	1,063,063.90

According to the report of William W. Bates, United States commissioner of navigation, 46 per cent. of the new tonnage of the country was built on the lakes during 1889. This is a percentage greater than the work of the Atlantic coast and western rivers combined, and almost equal to the whole work on the Atlantic and Pacific coast. In 1890 the tonnage built on the lakes is but very little less than that built on the Atlantic and Gulf coasts. Tonnage built on the lakes during the past five years was as follows:

	No. of boats.	Net Tonnage.
1886.....	85	20,400.54
1887.....	152	56,488.32
1888.....	222	101,102.87
1889.....	225	107,080.30
1890.....	218	108,515.00
Total.....	902	393,597.03

St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 234 days of navigation, 10,557; tonnage, net registered, 8,454,435. Number of boats through Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014.

Annual tonnage entries and clearances of the great seaports of the world, for 1889: New York, 11,051,236 tons; all seaports in the United States, 26,983,315 tons; Liverpool, 14,175,200 tons; London, 19,245,417 tons.

Tonnage passing through Detroit river during 234 days of navigation in 1889, amounted to 36,203,606 tons. Ten million tons more than the entries and clearances of all the seaports in the United States, and three million tons more than the combined foreign and coastwise shipping of Liverpool and London.

Entered at Cleveland Post Office as Second-class Mail Matter.

THE Canadian parliament is considering a bill to provide for the exercise of admiralty jurisdiction within Canada in accordance with the colonial courts of the admiralty act of last year. The bill, which was introduced by Sir John Thompson, constitutes a court of admiralty, defines the power of the judges and lays down where the suits may be instituted. Some members of parliament are opposing the bill. They are in favor of local judges trying the admiralty cases with appeal to the supreme court. Canada's high courts are probably not burdened with as much litigation of this kind as the United States supreme court has been of late years, but it would probably be well for the government to reduce in time the number of cases going before its highest tribunal. It is generally admitted that legal business will be greatly facilitated by the new federal circuit court of appeals organized in this country a few days ago. The decision of this court is to be final in admiralty cases, cases arising under the patent and revenue laws and in many other matters that will greatly relieve the supreme court. The marine interests have awaited with some anxiety of late the announcement of the names of the new circuit judges, but it is thought now that appointments will not be made until the fall.

CAPT. CHARLES WESTCOTT's appointment to the position of supervising inspector of steam vessels in the Eighth district, Detroit, meets with the approval of vessel owners around the lakes who asked for the appointment of a vessel master to the

position on the ground that the board should be made up of an equal representation of captains and engineers. Their claim was that matters coming before the board relate to all the equipment of a ship as well as the maneuvering of the ship, about which the engineers, although indispensable in their own line, have no particular knowledge. It is also expected that Capt. Westcott will in his new position be of valuable assistance to the Excelsior Marine Benevolent Association, the organization which seeks to improve the standard of lake captains as well as navigation rules, and which includes the great majority of these officers on the lakes. Chicago could not possibly have secured this office as the Illinois senator to whom the appointment might fall is at loggerheads with the president and the plea of the vessel owners for the appointment of a vessel master was a very strong one.

THE vessel owners of the lakes are expecting to be called upon during the coming session of congress to make a fourth campaign against bridging the Detroit river at Detroit. The Michigan Central Railway Company makes some pretensions of constructing a tunnel by holding a Canadian charter and by making soundings and borings at odd times in the vicinity of Detroit, but this work is thought to be insincere, as it is known that this company will resort to extremes in its efforts to bridge the river. On the other hand it is as well as settled that Luther Beecher of Detroit who proposes to construct a tunnel, whether with honesty of purpose or not, can not get a bill to that end through the next congress as long as Senator McMillan remains on the commerce committee of the senate. On this account it is hardly probable that the vessel owners of the lakes will again join with Mr. Beecher and his attorney, J. M. Cheever of Detroit in a fruitless effort to pass a tunnel bill. There are those among the vessel owners, however, who will renew all efforts of the past against any attempt to bridge the river.

Still Adding to the Lake Fleet.

The July supplement to Lloyds Inland Register contains the names of nine new steam vessels and one barge, aggregating 9,006 net tons and valued at \$1,238,000. The barge is a tank boat built at West Superior for the Standard Oil Company. The new boats are:

Vessels.	Net tonnage	Value.
Virginia.....	980	\$300,000
Atlanta.....	958	135,000
Roman.....	1,875	200,000
E. B. Bartlett.....	1,075	145,000
O. O. Carpenter.....	268	25,000
John Duncan.....	997	90,000
Griffin.....	1,526	165,000
Ideal.....	13	5,000
A. D. Thompson.....	1,075	145,000
* No. 55, S. O. Co.....	239	28,000
Totals.....	9,006	\$1,238,000

* Tow barge; all others steam.

The register gives the steel steamship E. C. Pope a corrected value of \$225,000 and records her net tonnage as 2,064 tons.

The steamer Arctic is lowered from \$18,000 to \$15,000 and in rating is dropped from A2 to B1, for coarse freight only. The barges Buckeye State, Boscobel and Minnie Davis also are rated B1 for coarse freight.

The June supplement to the '90 and '91 register of iron and steel vessels published by the United States Standard Steamship Owners' Builders' and Underwriters' Association, Limited of No. 50 Wall street, New York, includes the names of a large number of new steel vessels on the lakes. The steamships Castalia, Joliet, Tioga, Griffin, Virginia, Wawatam and tug Frank W. are all given A1 star ratings for twenty-five years. The John W. Moore, Briton, City of Toledo, German, Grecian, H. P. Tobey, Joseph L. Colby, Mackinaw, Marina, Mesaba, Norman, Saxon, Western Reserve and barges 107 and 109 are included in this supplement.

Around the Lakes.

Three towing companies of Chicago were fined in court recently for violation of the smoke ordinance.

The Chicago papers keep talking of raids by the Seaman's union on Cleveland vessels at this port, but we hear nothing of it here.—Escanaba Iron Port.

The boilers out of the steamer Jewett that were bought by Capt. Davidson of Bay City, will be put into the Monohansett and the Oneida according to reports.

The superior board of public works has instructed the harbor master to immediately place spar buoys in Superior bay to mark the channel for the benefit of vesselmen.

The wrecking tug Sea Gull broke a manilla hawser 18 inches in circumference, while at work on the propeller Presley, stranded near Sand Beach. It was the largest line ever sent west from Boston.

The investigation regarding grain frauds in Duluth elevators gives promise of petering out shortly. In the meantime grain cargoes from Duluth to Buffalo are holding out better than before the investigation began.

Care should be used in loading small vessels with stone. At Sturgeon Bay the steamer Pewaukee went over sideways and dumped a cargo of seventy tons into the river while loading, on account of improper trimming on deck.

S. C. Schenck, of Toledo, owner of the steel tug bearing his name, and who recently purchased the tugs Uncle Sam and S. F. Butler from Capt. J. S. Dunham of Chicago, talks of building another steel tug about the size of the Schenck.

The propeller Idaho lost a round trip as a result of her stranding near Ontonagon. Capt. G. W. Bryce of the Fountain City has been appointed master of the Idaho, vice Steve Chatterton, and Mate Kennedy has taken charge of the Fountain City.

The old Union Iron Works of Buffalo will be rebuilt into a first-class blast furnace for smelting of pig iron. The establishment of docks at the works, with the deepening of the river channel to 17 or 18 feet, will be a notable improvement for Buffalo harbor.

The schooner Hoboken, which took 21,160 bushels of wheat from Detroit to Buffalo, had about 400 bushels wet. A survey showed that the vessel was not to blame for the damage. As the loss did not reach an average, the owner of the grain had to stand it.

Frank Clark of Detroit has purchased the propeller Maggie Duncan, a boat of 535 tons built at Fort Howard last year, and will place her in the lumber trade between Baraga and Chicago, towing the rebuilt J. E. Potts, which burned at Detroit last winter and was later converted into a tow barge.

Harbor tugs as well as the large steam vessels must be provided with water buckets marked with the name of the boat. Chicago tugmen who could reach over the side of their craft at any time paid little attention to this precaution against fire until the revenue cutter Andy Johnson reported several of them for fines a few days ago.

The Detroit and Cleveland Steam Navigation Company has united with the railways of Detroit in preparations for the establishment of a freight collection agency. It is proposed to collect all freight charges through one office, the different companies contributing to the maintenance of the bureau in proportion to the amount of business done for each.

Lake excursion business is picking up in Buffalo. Another boat, the Shrewsbury now on her way up the St Lawrence from New York, will begin excursions next week between Buffalo and Niagara Falls. The Shrewsbury is a screw propeller something smaller than the excursion steamer Pearl of Buffalo. She was purchased in New York by Geo. Porter.

The dredge Milwaukee, now at work on the straight channel at Sandusky, removed an average of 2,000 yards of sand and marl every day last week. On each of two days the work exceeded 2,300 yards. One-half of the first cut is completed a distance of 4,800 feet from the B. & O. docks. The inner end of the cut was made through the bar two years ago.

A mind reader, Boor Sutton by name, prevailed upon the captain of the little steamer Hattie Loyd to allow him to pilot the boat through the narrow channel between Duluth and West Superior. After being blindfolded he held the captain's wrist

with one hand and the wheel with the other. The trip was made without difficulty, several boats being passed in the cut.

The Manistee Iron Works Company compounded the engines of the propellers Fannie C. Hart and Pewaukee, two Lake Michigan boats, during the past winter. Last season the Hart burned \$437 worth of fuel every twenty-four days against \$188 worth this season and the speed has been increased a mile an hour. A similar saving in fuel and increase in speed is reported by the owners of the Pewaukee.

J. M. Jones & Son, Detroit, have purchased the schooner Canton, built in 1873, rating A2 1/2 and 304 tons, from A. Chesbrough for \$5000. C. D. Thomson, Port Huron, paid the International Bridge Company \$7,000 cash for the tug M. F. Merrick, 133 tons, built in 1873 and rebuilt in 1889. Capt. Thos. Conlin, Buffalo, paid Capt. C. B. Chatterton \$1,300 for a sailing interest, one-third, in the schooner C. A. King.

The American Ship Windlass Company, of Providence R. I., recently shipped three windlasses for yachts at Cleveland. Since the first of January last this house built and shipped their windlasses and capstans to the yachts Alborak, Alice, Anita, Barbara, Beatrix, Dauntless, Gretchen, Helvetia, Melissa, Minneola, Nautilus, Norma, Oweene, Romaine, Sayonara, Silva, Veto, Wild Duck and Xara. Windlasses for a yacht at Newberryport, three at Boston, one at Central Falls, two at Brooklyn, and one at Long Island have also been shipped lately.

There must be some reason for the fact that there are very few large docks on the lakes that are not equipped with McMyler derricks. In all probability the reason is that they do the work quicker and stand the wear and tear better. An Excelsior machine was placed alongside a McMyler derrick on the Pennsylvania dock at Ashtabula. To avoid going into detail the results were so favorable to the McMyler machine that when ten more derricks are ordered they will be furnished by the McMyler Manufacturing Company.

The Keweenaw, built in West Bay City, for ocean traffic and now in New York, will sail about July 6 for San Diego, San Francisco and Seattle. Her loading berth is East Central pier, Brooklyn. The speed attained by both the Mackinaw and Keeweenaw on the coast as well as economy in the propelling power is attracting a great deal of attention. Each of the steamers has two boilers 13 feet 4 inches in diameter and 12 feet long, with Fox corrugated furnaces. The boilers were built by Wickes Brothers of East Saginaw and are undoubtedly four of the best ever built on the lakes.

William Rymer, a locomotive engineer of Detroit, has invented and patented a steering apparatus for steamboats which, it is claimed, reduces the possibility of accident from defective steering gear to a minimum. The device is operated by either hydraulic or pneumatic power, chains and cables of every description being dispensed with. The machinery is located in the vicinity of the rudder and is governed by a patented valve placed in the pilot house, which gives the wheelsman absolute control of the smallest fraction of movement. When the rudder is not being shifted, the pressure is removed and it is then locked in position, requiring no further attention until shifting is again necessary. Satisfactory results are said to have been obtained from tests made, the device being applicable to every kind of steam craft. Mr Rymer submitted the drawings of his invention to an academy of French inventors in Paris and has been rewarded with the title of "corresponding honorary member" and a gilded medal.—Free Press.

A gang of men is now at work building the light station on Devil's Island, the most northerly island of the Apostle group, Lake Superior. The tower, owing to the smallness of the appropriation therefor, will be a temporary wooden structure, but will ultimately be replaced by brick. The keeper's quarters will be of brick. This station, it is expected, will be completed and in operation by the latter part of next month. Bids have been invited for material for the construction of the light station at Two Harbors, Minn., and work upon that station will be commenced within two months. Seul Choix point, Lake Michigan, will be the next point tackled. Col. Ludlow will in all probability have the latter two stations completed and in operation before the close of navigation. They are all to be of brick and each will burn a fixed white fourth order light. These will be the only light stations established on the upper lakes this season. In addition Col. Ludlow will do his utmost to have all the ranges and beacons set in St. Mary's river before the season closes.

In General.

The new ore docks at Huron are being cleared with a view to receiving ore just as soon as possible.

Now it is said that Capt. Alexander McDougall when in Europe in 1874 got his ideas of the whales from Winans' cigar shaped craft about which a great deal has been said of late.

Wilson & Hendrie, proprietors of the Montague Iron Works, Montague, Mich., have closed a contract with Captain Charles Gnewich of Manistee, Mich. for a fore and aft compound marine engine 18 and 36 inch cylinders by 30 inch stroke, to be placed in a new steamer being built at Manitowoc, Wis. by Burger & Burger. The boat is to be ready for sea by Oct. 15th. 1891.

Buffalo keeps up the heavy movement of coal begun early in the season. Shipments in June aggregated 396,083 tons, against 327,670 tons for last month and 212,224 tons for June 1890. The total of shipments this season amount to 812,290 tons, more than any previous record for the first three months of navigation. Last year a total of 547,611 tons was shipped during April, May and June.

In mentioning the property of the Coxheath Copper Company recently an error was made in stating that some of the stock could be purchased. No stock is for sale, nor will be for the present, and the only way the stock can be obtained is by purchasing bonds, 50 shares of stock being given as bonus to each bond, making a valuable security in addition to the investment on the bond, which is excellent in itself.

Boatmen of the Ohio river are complaining about the proposed enactment of a law providing that no person be licensed as master of any craft exceeding one hundred tons burden, unless such person shall have served at least one year in the capacity of mate. Such a regulation would work no hardship to anyone in the lake trade. The masters of lake vessels give many years to the service before being placed in charge of a boat.

The announcement is made by Vice President E. C. Smith of the Central Vermont Railroad, operating the Ogdensburg Transit Company, that Manager F. W. Baldwin of the transit company has been appointed assistant general superintendent of the Vermont Central Railroad. Mr. Frank Owen in addition to his general duties as general freight agent of the Ogdensburg Transit Company is appointed superintendent of that company.

Vessel owners are complaining that Buffalo docks still insist on charging 18 cents a ton for unloading ore, although the rate was long ago reduced to 16 cents at all other ore receiving ports. If it is true that Buffalo will not give a rebate on ore already received or reduce the price, such a proceeding on the part of the dock managers will certainly result to the disadvantage of that port. Vessel owners will not stand the long water haul with no difference in the freight rate and a high unloading charge.

The days when state directories were considered to be an ornament or luxury have gone by and they are now considered by most business men a great convenience if not a necessity. The state directory is to business houses what the city directory is to the resident of the city. The one in mind is the Ohio State Directory, published at Cincinnati and for accuracy of addresses its pages are unimpeachable. A manager of a prominent mercantile agency questioned its correctness, compared it with his agency reports and ended his criticism by ordering a copy of the directory. Address the Williams Publishing Company, Cincinnati, for particulars.

Some flour was shipped from Buffalo to New York by way of the Erie canal, a few days ago. It was the first shipment of flour by canal since 1886 when Pillsbury sent forward several cargoes for the purpose of bringing the lake and rail lines to his way of figuring rates. About all the northwestern flour, except that of the Imperial mills which made the shipment by canal, is brought down on through rates by the lake lines having rail connections for the seaboard. These lines thus control the business practically. The Imperial people send their flour down on outside steamers, and therefore are under obligations to ship by rail from the lake terminal. The rate by canal is said to be less than one half that by rail.—Buffalo Courier.

The Roberts Safety Water Tube Boiler Co. of 18 Courtland Street, New York, and Red Bank, New Jersey, report a very favorable season. They have sold seventy-one of their boilers this season, so far, with more orders coming in, and all the boilers have given thorough satisfaction. Three hundred and forty-one of these boilers have been sold altogether and the works now

cover over 12,000 square feet of ground and contain many expensive and special tools for building the boilers, which are made of special material manufactured for this purpose only. They report four or five boilers still remaining in stock as a result of change in dimensions by some of their customers. Parties requiring a good boiler, all ready for immediate delivery, would do well to communicate with them. They are highly approved by the United States Inspectors.

You wanted to place some advertising and you did not know exactly how, when or where to place it. You decided to await developments. About this time along came a silk-hatted individual with a "pig in a poke." You naturally wanted to see the pig before you paid \$2.00 or \$3.00 for 2, 3, 4, or 5 inches of its space, but the s.-h. individual was not paid to show the pig, he was paid to talk about the pig's advantages and beauty, its capacity for rooting up business from pole to pole etc. The chances are even that the pigs in the pokes got all the money you expected to spend for advertising and more too. You naturally expected to get some return just enough to encourage you if nothing more. But you never even heard a grunt from any of the pigs. Next year an advertising solicitor has to crawl over the transom to see you and even though he is leading the pig and shows him to you, you won't invest. You lose the advantages to be gained by judicious advertising in proper fields and the proper mediums lose your business. That is wrong, but happily a means has been provided for righting it. Send a dollar to Rowell & Co., New York, for a "knife" that will cut the poke and the pigs wide open. The knife is labeled "Geo. P. Rowell & Co's Book for Advertisers." It mentions about one third of the papers published; cuts out a bouquet that will please the advertiser with its lasting fragrance.

Affairs in Admiralty.**CLAIM FOR GENERAL AVERAGE.**

A libel to recover upon a general average bond by Shoe et al. vs. The Low Moor Iron Company of Virginia et al. was heard by Judge Brown in district court, southern district, New York. The schooner Tantum, loaded with iron and drawing 9 feet of water, was in a gale inside of Delaware breakwater. She parted kedge and starboard anchors, but drifted in the trough of the sea with her port anchor until she was within 250 yards of the outer bar, when the master to save life, cut the cable and let the vessel run head on to the shore, where she grounded and became a total loss, part of the cargo being saved. A bond had been given by the cargo owner to pay any amount found due on general average and the libel was filed to recover \$2,939, the amount charged against the cargo by average adjusters. It appeared that when the cable was slipped, the vessel would have drifted on the bar within five minutes; that there was no reasonable probability that she would have sunk before reaching the bar, if the cable had not been cut; that its only effect was to drive her upon the bar earlier, and that the cutting of the cable was no benefit to cargo or vessel. Therefore it was held that no claim of general average arose.

DUTY TO CHARTERER'S MEN.

The case of Doyle vs. the Jersey City was also heard in district court, southern district, New York. The libellant was employed to put up a refrigerator in the hold, and leaving work at midnight he fell down the hatchway, claiming that the hatch was not covered and no lights were maintained. It was held that the ship was not under duty to supply lights or cover hatches for charterer's men, nor was libellant's fall due to lack of light but to his own negligence, therefore the libel was dismissed.

A large pontoon for the 120,000 ton floating derrick was successfully launched June 4 at Cramp's shipyard. This is one of the largest derricks in the world, and as it was built on the side of a ninety foot basin and was sixty-two feet wide, the problem of launching was one of great interest.

JULY FOURTH EXCURSIONS: The Erie Railway Co. will sell excursion tickets to and from all stations on the N. Y. P. & O. division July 3d and 4th, returning July 6th, at one fare for the round trip. I

FROM END TO END. The entire length of the line, tickets will be sold at one fare for the round trip, July 2nd, 3rd and 4th, between any two stations on the Nickel Plate.

Hay Lake Cut.

The schooner Mineral State, Capt. A. E. Bullock, enjoys the distinction of being the first trading vessel to go through the new Hay lake cut. Contractor Dunbar had one of his tugs tow the Mineral State with another small vessel through the new channel a short time ago. Both were light, of course, and were moved with care. Capt. Bullock pronounces Hay lake a most attractive, large body of water. The new channel will shorten the Lake Superior route by 15 miles. At one place, near the head of the lake, the contractors will cut the channel 300 feet wide and 20 feet deep, through an island half a mile long.

Official Numbers and Tonnage.

The bureau of navigation, William W. Bates, commissioner, assigned official numbers to the following lake vessels during the week ending June 27: Steam—Acme, Buffalo, 128.09 tons gross, 103.07 tons net, No. 106,843; Barney Cohen, Sandusky, 16.62 tons gross, 11.64 tons net, No. 3,504. Sail—Almeron Thomas, Port Huron, 35.02 tons gross, 33.27 tons net, No. 106,484; Susie, Cleveland, 9.85 tons gross, 9.36 tons net, No. 116,422.

For a quiet day and good time go to Geauga Lake July 4th. Tickets 50 cents. Good on all trains of the Erie Ry. from Central Passenger Station, South Water street.

WONDERFUL SIGHTS.—Extremely low rates. Niagara Falls is the world's most amazing sight and the Nickel Plate excursion of July 13 enables everyone to go at a small expense. Remember a daylight ride in Pullman day coaches. City ticket offices, 224 Bank street, 598 Pearl street and depots.

TORONTO EXCURSION.—The Nickel Plate will sell excursion tickets to Toronto, Ont., from July 6 to 15, inclusive, at special rates, account of the National Education Association. For full information, call upon or write nearest Nickel Plate agent.

DON'T FAIL TO IMPROVE the opportunity offered by the Nickel Plate to all who wish to visit Toronto, Ont. or vicinity. Tickets will be on sale via that line, at special rates, from July 6 to 15. Full information given by agent.

Commercial Union Assurance Company, Limited, OF LONDON.

INLAND MARINE DEPARTMENT.

DAVID VANCE & CO.,

General Agents,

MILWAUKEE, WIS.

Local Agents at all Lake Ports.

INSURES HULLS,
CARGOES AND FREIGHT.

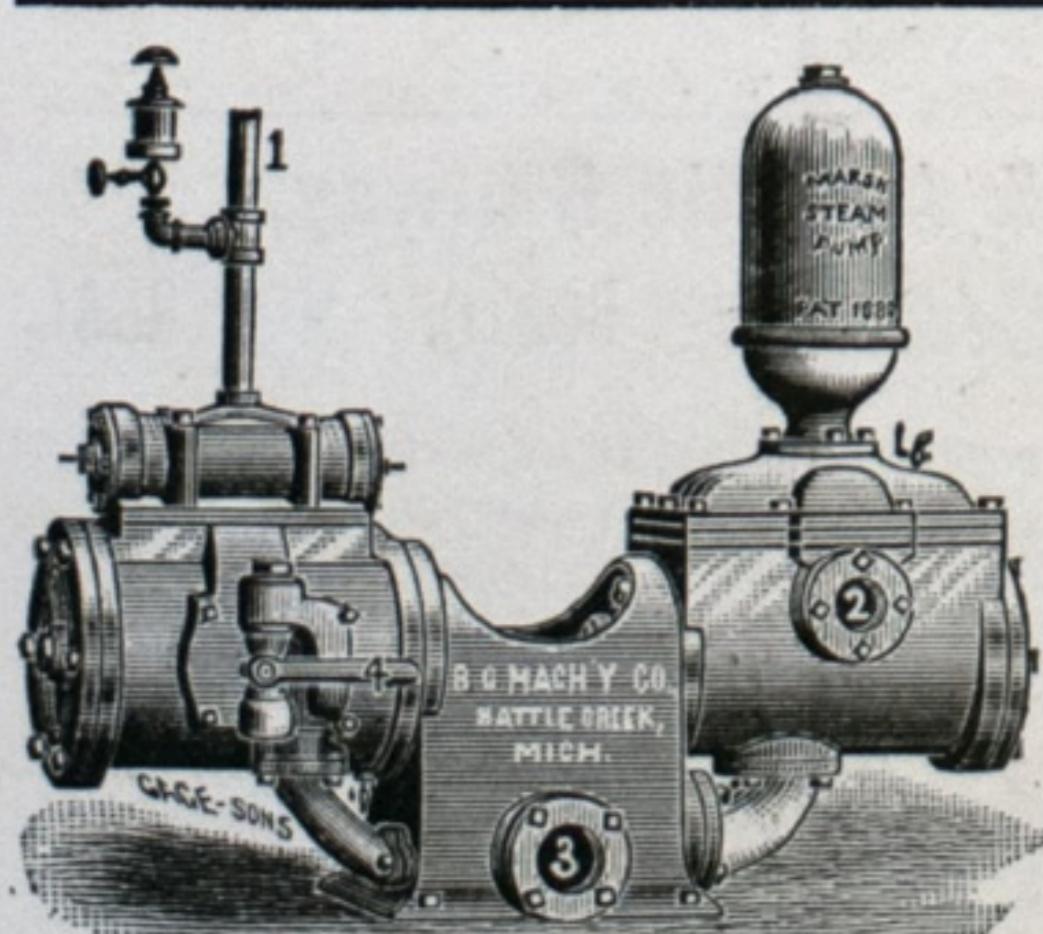
Local Agents at all Lake Ports.

Insurance Company of North America.

INCORPORATED 1794.

LAKE MARINE DEPARTMENT,
GEO. L. McCURDY, Manager, Chicago, Ills.CHARLES PLATT, President.
EUGENE L. ELLISON, 2d Vice-Pres't.
JOHN H. ATWOOD, Assistant Secretary.WILLIAM A. PLATT, Vice-President.
GREVILLE E. FRYER, Sec'y & Treas.

Capital, paid up in cash.....	\$3,000,000.00
Assets.....	8,951,518.83

**MARSH STEAM PUMP,**

Absolute Actuation and Regulation Without Use of Tappets, Levers or other Mechanical Connections.

FOR MARINE AND STATIONARY BOILERS.

Smaller Sizes With or Without Hand Pumping Attachment.

Exhaust Returned to Boiler. Heats Feed Water Forty to Fifty Degrees, according to tests made by Prof. M. E. Cooley, of the University of Michigan. Steam Valves Actuated by Direct Boiler Pressure.

Has Fewer Wearing Parts than ANY OTHER Steam Pump.

For Circulars and Prices, address

STRONG, CARLISLE & TURNLEY, Cleveland, O.
DETROIT SHEET METAL & BRASS WORKS, Detroit, Mich.
or BATTLE CREEK MACHINERY CO., Manufacturers, Battle Creek, Mich.

Lake Chautauqua—The Queen of Summer Resorts.

At a lake of cool crystal water, located among the beautiful highlands of the Empire state, over one hundred and fifty thousand people seek each summer season the delightful rest always found in that wholesome atmosphere. Chautauqua—the famous resort—located between fourteen and fifteen hundred feet above the ocean, has unsurpassed facilities for boating, fishing and bathing. When these pastimes are combined with the advantages made possible through the educational and religious organizations, which make Chautauqua lake their summer headquarters, it is surprising that each season, thousands frequent its shores.

With hotel accommodations capable of delighting the tastes of the most fastidious and boarding houses where families may secure commodious rooms and excellent service at reasonable rates, should it be wondered at that people flock from the smoke, dust and heat of our cities to enjoy the pleasures and benefits obtainable on the shores of this "Lake of Springs."

Tourists selecting the Nickel Plate route to this queen of summer resorts, will find accommodations desirable in every appointment. Excellent connection is made for Chautauqua lake at Brocton Junction, N.Y., and from Mayville, N.Y. any point on the lake may be reached via boat or rail. Passengers holding tickets via Nickel Plate to Niagara Falls, may secure stop-over at Chautauqua free of charge.

Be sure your tickets read via the Nickel Plate.

July 30

CHAUTAUQUA LAKE: The Erie Railway will sell excursion tickets to Lake Chautauqua on account of Ohio Teachers' Convention, July 6 and 7, at one-half fare (\$4.35) for the round trip. Good returning up to and including July 13. Call at 141 Superior street, or at Central passenger station, South Water street and Viaduct.

"THE MICHIGAN"

ISSUES POLICIES ON HULLS AND CARGOES
ON FAVORABLE TERMS. IT IS FOR THE
INTEREST OF THE OWNERS OF THE LAKE
MARINE TO BUILD UP A HOME COMPANY
BY THEIR PATRONAGE.

AGENCIES AT PRINCIPAL PORTS.

PHOENIX IRON WORKS

—MANUFACTURERS OF—

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Residence, 192.

Special Attention Given to Repairs.

HAVE YOU HEARD OF THE

HYDRAULIC STEERING GEARS.IT IS ASTONISHING HOW WELL AND EASY THEY DO THEIR WORK.
Manufactured by

CRAWLEY & JOHNSTON.

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HIGH FLASH.

ERIE, PA.,

MANUFACTURERS OF THE

HIGH VISCOSITY.

Monarch Valve Cylinder and Engineers Valve Oils,THE MOST PERFECT CYLINDER OILS FOR MARINE USE.
EVERY BARREL GUARANTEED.**THE O'CONNELL GREASER,**

During the past three years hundreds of marine engines of from 2,000 to 4,000 h. p. have been served, as well as high speed electric light engines.

RESULTS:

Sure control of Crank Pin.

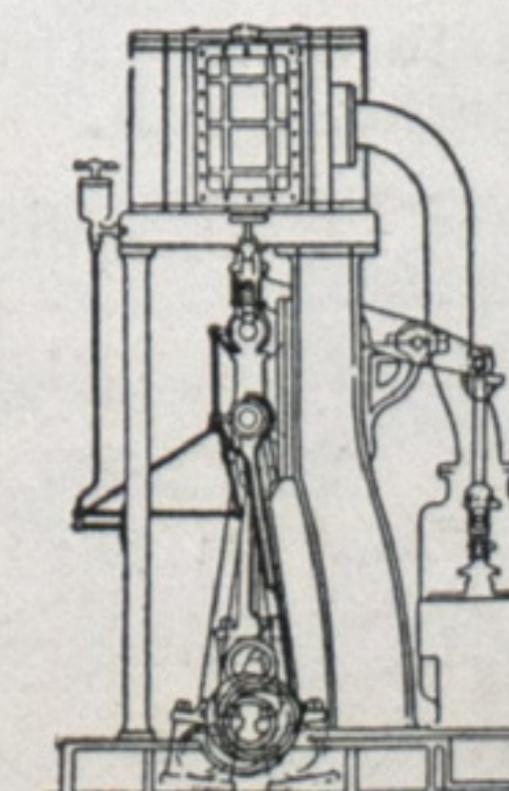
Stoppage of Lard Oil account.

Perfectly clean Engine

O'Connell & Cahill,

Manistee, Mich.

Dark lines indicate apparatus.



E. L. PARRISH & CO.,

SHIP CHANDLERS, SAIL, AWNING and RIGGING LOFT.

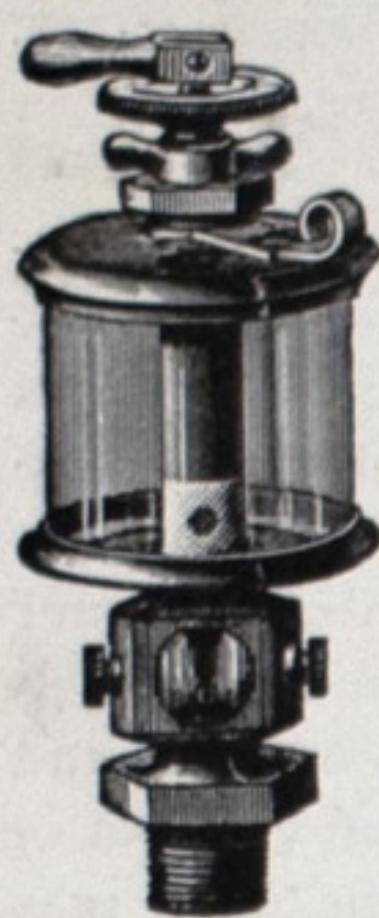
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Telephone 314.

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Powell's Signal Oilers.



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Convenient to fill.
Easy to regulate.

Flow of oil can be instantly shut off by simply moving the lever down—without disturbing the adjustment.

Also made Double and Triple Sight feed for Marine Engines.

Your dealer can supply you. Manufactured by

The Wm. Powell Co.,
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VESSEL AND MACHINERY EXCHANGE.

Space under this heading may be used gratis by our advertisers or subscribers to call attention to vessels or any craft, machinery, new or second hand, that they may have for sale. Those wanting machinery of any kind, or wishing to purchase vessels, are invited to take advantage of the same offer. Each item will be limited to three lines. Letters concerning same must mention number attached to item and be addressed MARINE REVIEW, 510 Perry-Payne Building, Cleveland, O.

61—Fish tug for sale—62 feet long, 14 feet beam and 7 feet 6 inches deep.

62—WANTED—To trade valuable real estate for insurable vessel that will carry 500 to 800 thousand feet of lumber, steambarge preferred.

58—Crosby Indicator, used only four times, for sale cheap.

63—DREDGE—At auction Wednesday, July 1, 11 a.m., at a point a short distance west of Willow street bridge, old river bed, Cleveland.

64—For Sale at a Bargain—Steamboat 78 feet over all, 18 feet beam; double engines; hull in first-class condition.

65—For Sale Cheap—Two 10 x 10 Marine Engines with two 4 feet 4 inch wheels; good shafting, heater, boiler, steam pump and connections; or will exchange for small yacht or real estate.

66—Steambarge that will carry 200 tons wanted for balance of season, or longer.

1867. PERFECT SATISFACTION GUARANTEED. 1891.

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34 & 36 River Street, CLEVELAND, O.

Manufacturers of Strictly Pure and Acidless Lard Oils, specially adapted for Steamboat use.

Will furnish Brand free for Ship Chandlers or other dealers who desire their name and address on packages.

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ESCANABA TOWING & WRECKING CO., Escanaba, Mich.

Tugs, Lighters, Steam Pumps, Hawser, Hydraulic Jacks and Diving Appliances always ready. TUG MONARCH, Engine Compound, Cylinder 16 and 30 inches diameter, 30 inch Stroke, Steam Pressure Allowed, 125 pounds.

TUG DELTA, Cylinder 20 by 22, Steam Pressure Allowed, 105 pounds.

TUG OWEN, Cylinder 20 by 20, Steam Pressure Allowed, 104 pounds.

CENTRIFUGAL PUMPS, Seven and Fourteen Inch Suction.

V.O.T. LINE OF TUGS.	ALVA B. H. L. CHAMBERLIN. W. D. CUSHING. W. A. COLLIER, Manager. Office, Main Street Bridge, Telephone 409.	JOE HARRIS. TOM MAYTHAM. C. G. CURTISS. CLEVELAND.
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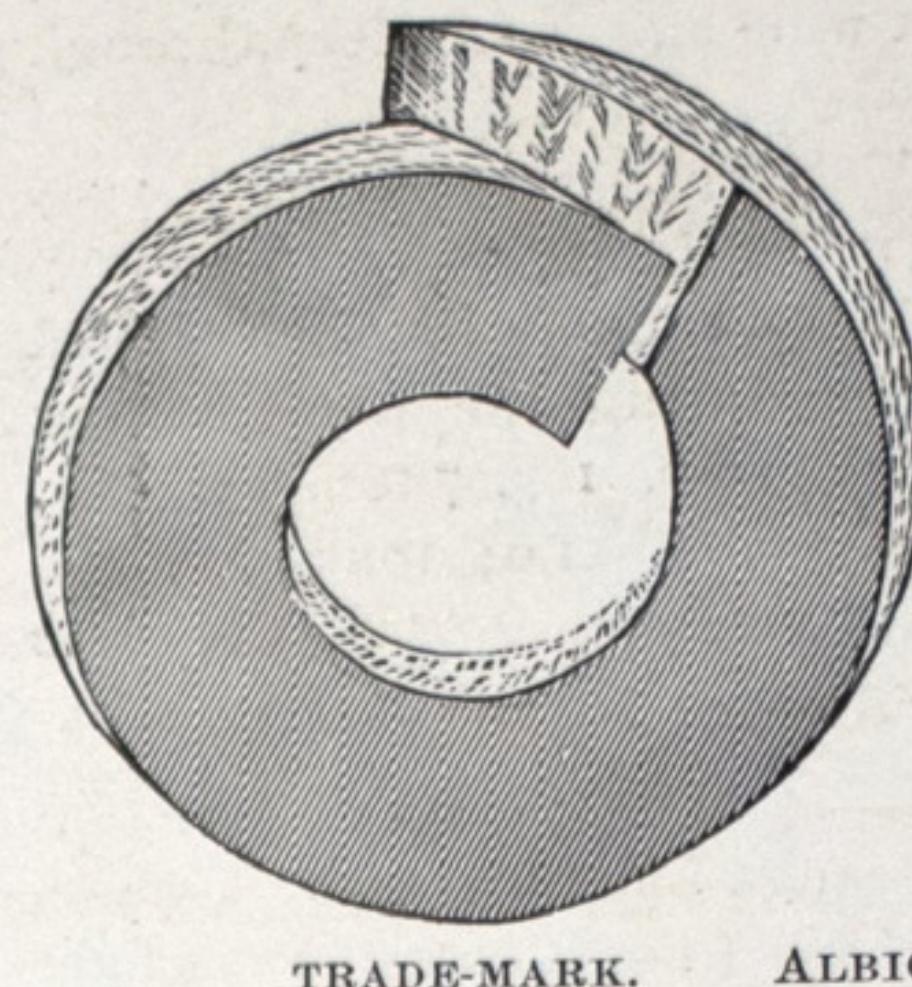
Steam Pumps, Hawser, Lighters, etc., furnished on short notice.

NEWLY FINISHED, FINE MODEL, FAST TUG FOR SALE.

Dimensions, 76 feet long, 15½ feet beam, 7 feet deep, with an engine 18 x 20; steam supplied by steel boiler 6 ft. 8 by 10 ft. 8.

D. BELL ENGINE WORKS, **BUFFALO, N.Y.**

GOULD'S STEAM AND WATER PACKING.



Pat'd June 1, 1880—The Original Ring Packing. For Piston Rods, Valve Stem of Steam Engines, Steam Pumps, and especially adapted for Marine Engines and Electric Light Plants.

In ordering, give exact diameter of Stuffing Box and Piston Rod or Valve Stem.

Self-Lubricating, Steam and Water Tight.

Less friction than any other known Packing. Never grows hard if directions are followed. Does not corrode the rod. Every Package Fully Warranted.

N.B.—This packing will be sent to any address, and, if not satisfactory after a trial of 30 days, can be returned at our expense. None genuine without this trade-mark and date of patent, stamped on wrapper. All similar Packages are Imitations, and calculated to deceive.

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M. L. WEIL

The Champion of all Fire Extinguishers! Just the Thing that is Wanted on Every Vessel!

CLEVELAND, O., Sept. 19, 1890.

Black Cloud Chemical Fire Extinguisher Co.:

GENTS: It affords me great pleasure to testify of the great work your extinguisher does. I have four of them on board and for their simplicity of handling, as well as quickness of extinguishing a fire, they have no equal. Yours truly, CAPT. H. H. HICKMOTT, Schooner E. B. Palmer.



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THE NEW YORK, CHICAGO & ST. LOUIS R. R.

	Arrive East.	Depart East.
Buffalo Passenger	10 40 AM	10 45 AM
Chicago Passenger	9 20 PM
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WESTWARD.	Arrive.	Depart.
Chicago Passenger	6 30 AM
Fostoria Passenger	6 40 PM	7 00 PM
Local Freight	3 50 PM	6 00 AM
Lorain Accommodation, Departs	5 10 PM	.....
Dover Accommodation, Departs	1 30 PM and 5 10 PM	.....
All trains daily except Sunday.		

ERIE RAILWAY.

	Arrive.	Depart.
Youngstown Accommodation	*7 15 AM	*6 00 AM
New York and Pittsburg Express	*5 15 AM	*8 10 AM
Pittsburg Accommodation	*12 30 PM	*11 25 AM
New York & Pittsburgh Limited	*9 55 AM	*2 55 PM
Mantua Accommodation	*7 20 PM	*4 20 PM
Youngstown Express	*9 10 PM	*6 00 PM
New York & Pittsburgh Express	*6 50 PM	*11 00 PM
* Daily. † Daily except Sunday.		

This is the only route by which passengers can reach Corry, Elmira, Binghamton and New York City without change.

The short and direct route to Pittsburg, Washington and Baltimore. Only 4½ hours to Pittsburg; four trains daily.

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OVER 100 MILES SHORTER than any other line between BOSTON, MONTREAL, And Principal New England and Canadian Points and the great Northwest.

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The New Short Line from principal points in Michigan to DULUTH, PACIFIC COAST and intermediate sections. RATES ALWAYS THE LOWEST.

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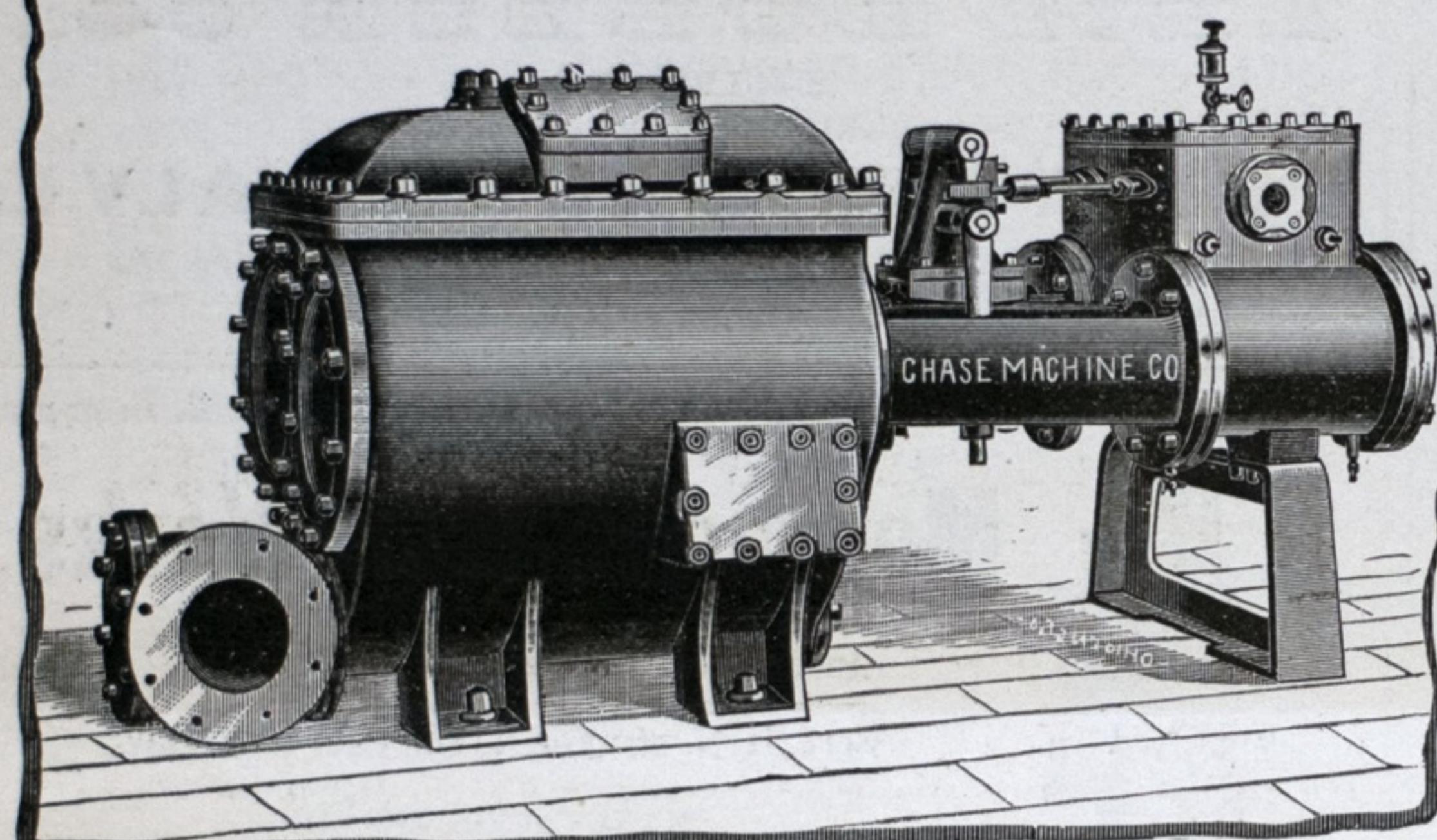
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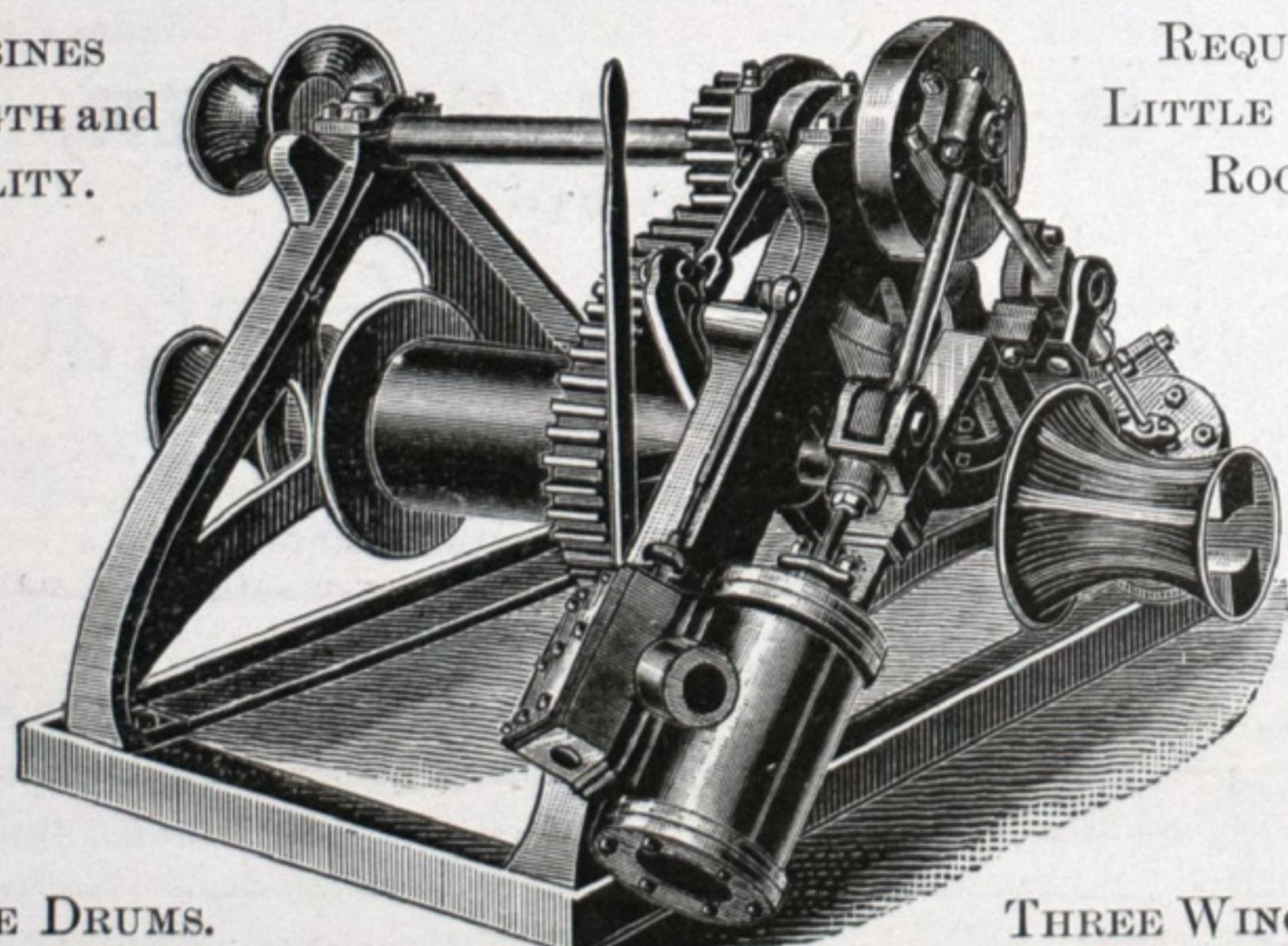
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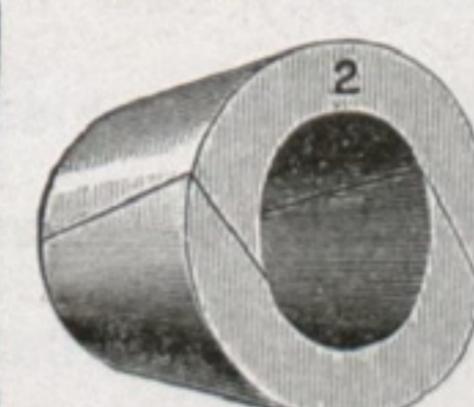
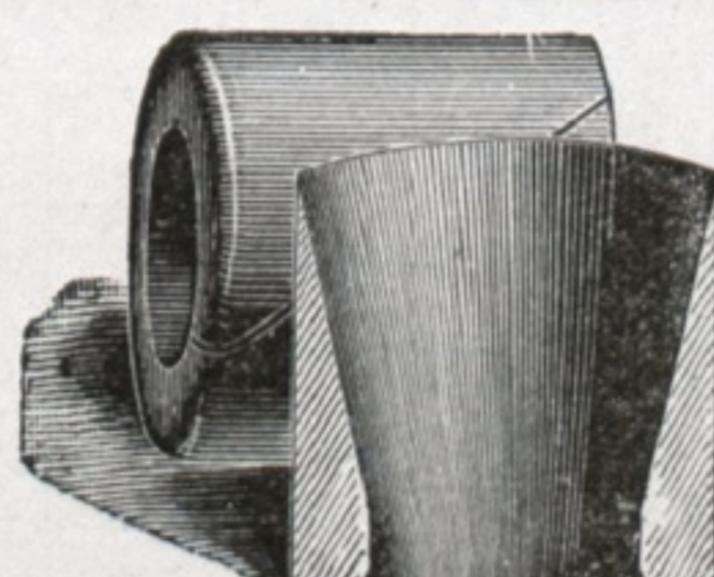
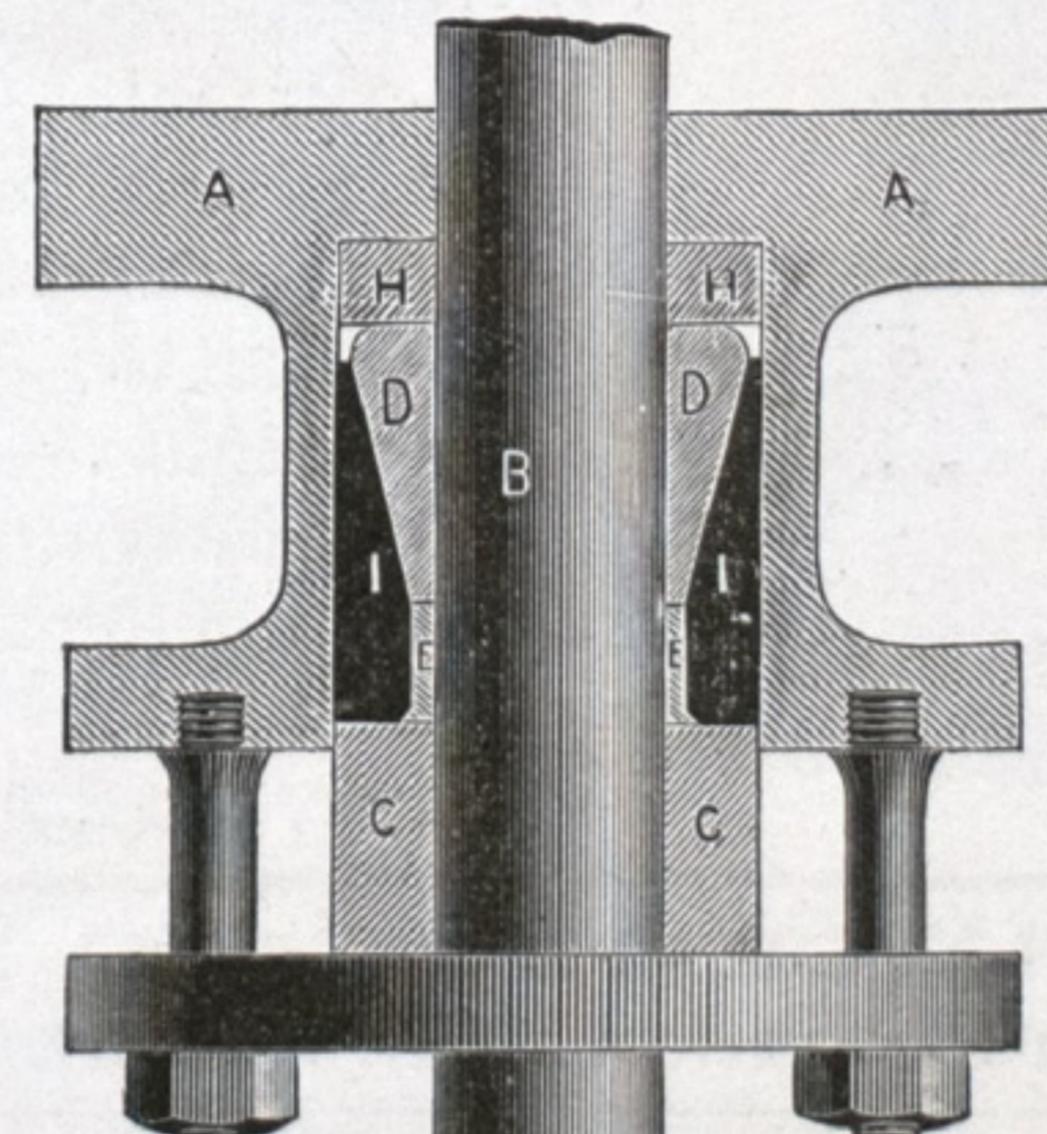
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Can be applied without disconnecting
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This packing has been in constant use
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If your rods are in perfect line, send
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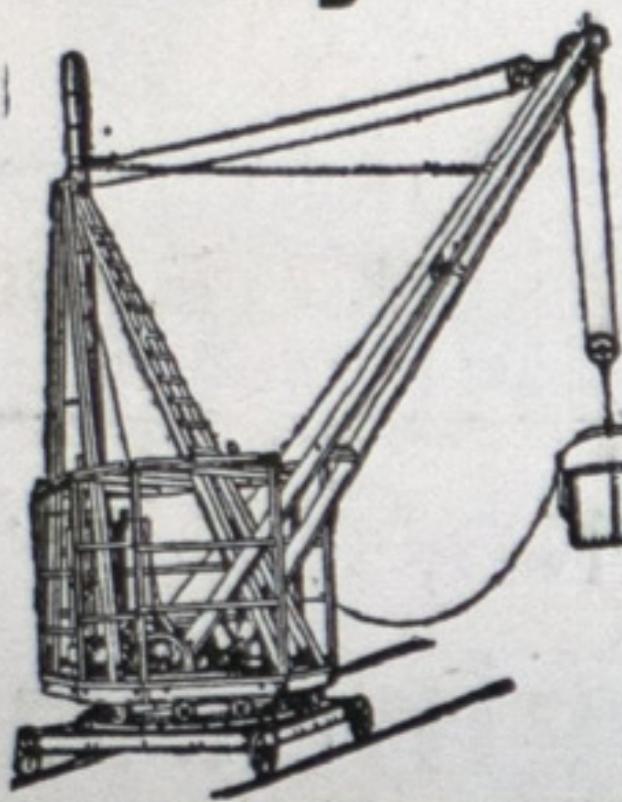
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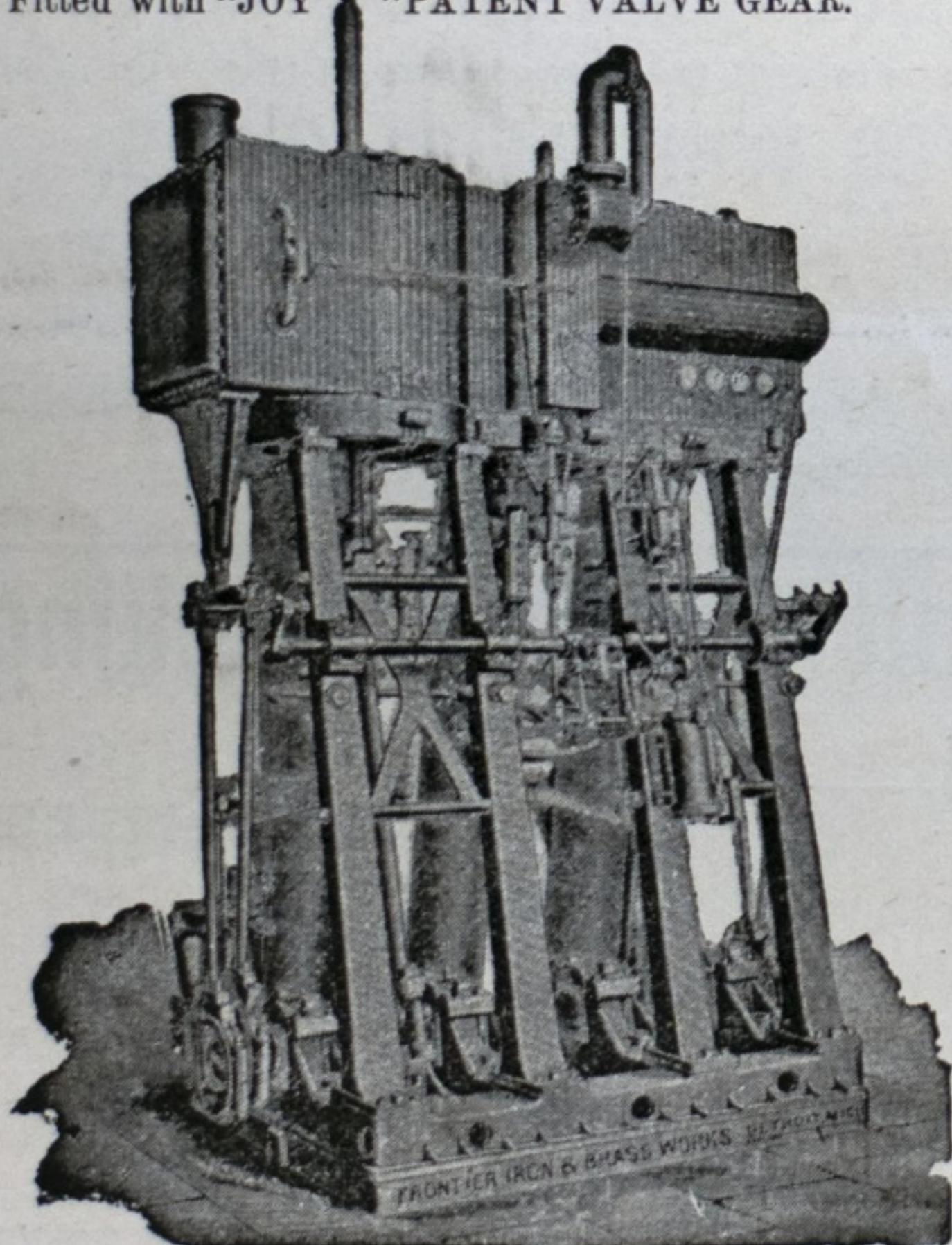
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TRIPLE EXPANSION
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Marine Engines

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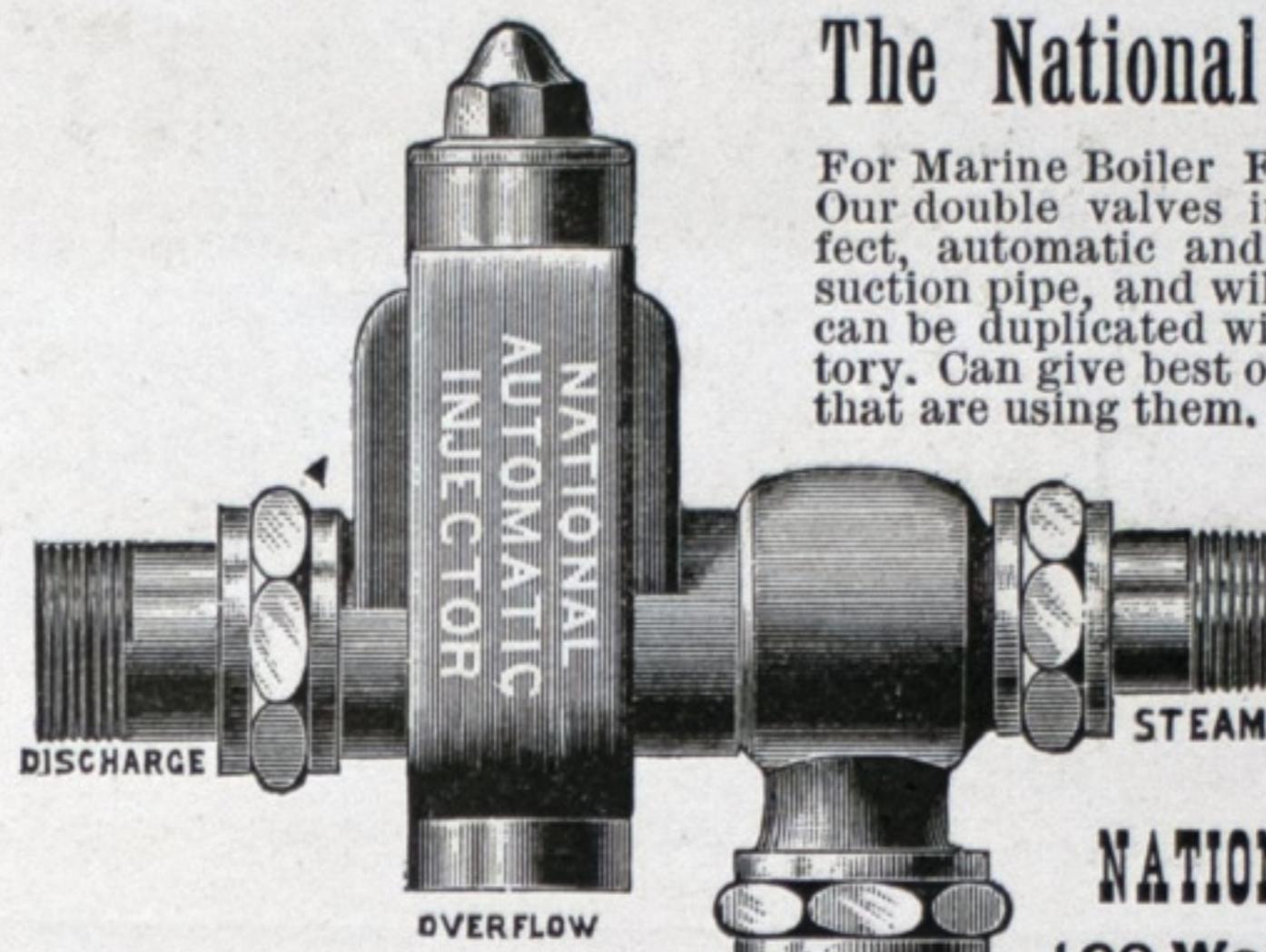
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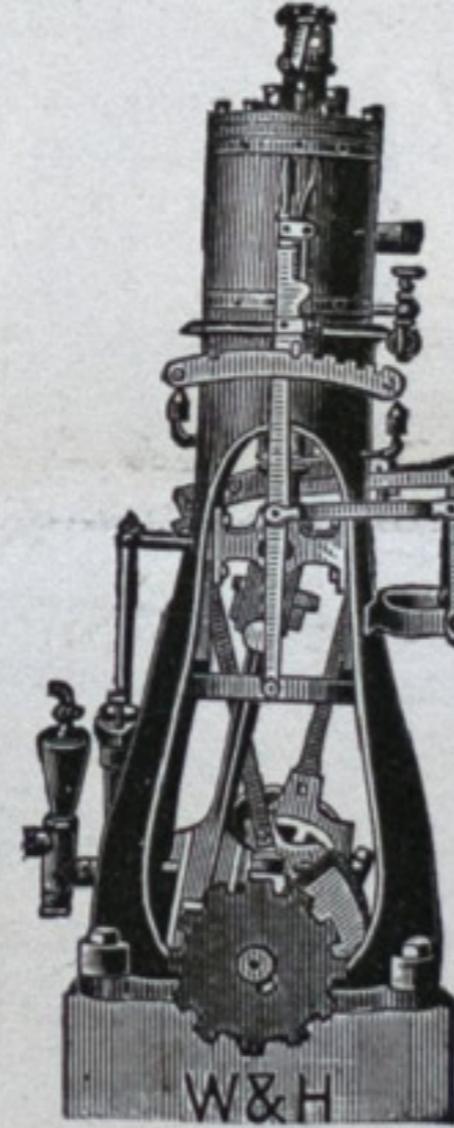
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Clark Dry Dock Co.	Detroit, Lower Docks,.....	{ 360 220	{ 68 42	{ 10½ 11½ } { 9 upper 10 end. }	Watchman at Dock will call Superintendent.
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R. Mills & Co.	Buffalo, N. Y.	{ 280 320	{ 40 46	{ 12 13½ }	Boom Derricks.	Call Watchman.